Ontario Ministry of Northern Development and Mines

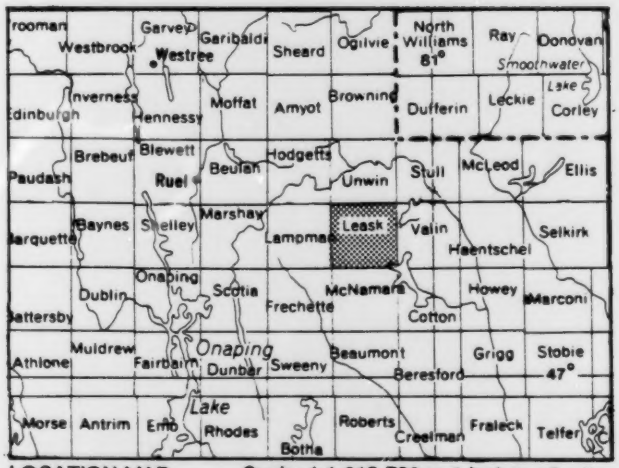
Mines and Minerals Division

ONTARIO GEOLOGICAL SURVEY

GEOLOGICAL DATA INVENTORY FOLIO 492

LEASK TOWNSHIP

Compiled by the Staff of
the Resident Geologist's Office
Sudbury



LOCATION MAP Scale: 1:1 013 760 or 1 inch to 16 miles

CANADA ONTARIO Mineral Development Exploration Minerals

This project is part of the five year Canada–Ontario 1985 Mineral Development Agreement (COMDA), a subsidiary agreement to the Economic and Regional Development Agreement (ERDA) signed by the governments of Canada and Ontario.

90-03052/

NTS Number 41 P/3

Mining Claim Map Number M.983

This project was funded under the Canada-Ontario Mineral Development Agreement (COMDA)

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey 19 90 Leask Township, Geological Data Inventory Folio 492; compiled by the staff of the Resident Geologist's office, Sudbury.

Original Compilation by: Jerome, Lucille, August 1988

Date	Page Revised	Revised by

Date	Page Revised	Revised by

TABLE OF CONTENTS

Data Sources Checklist 1

Metals and Minerals Reference List 2

Mineral Occurrences 3

Type of Work 4

Drill Hole Summary 5

Airborne Geophysical Survey Data 6

Geochemical Survey Data 7

Miscellaneous Data 8

Newspaper Clipping File 9

ODM General Index Search 10-11

Selected References 12-13

Notes and Addenda 14

(Aerial Photographs Index)

ACCOMPANYING MAPS

Property Location Map 1

Exploration Data Map 1

Map Scale 1: 31 680 or 1 inch to ½ mile

CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
			LENGTH		
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709 7	chains	1 chain	**20 116 8**	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
			AREA		
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	**2.589 988**	km^2
1 ha	2.471 054	acres	1 acre	**0.404 685 6**	ha
			VOLUME		
1 cm^3	0.061 02	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	**0.028 316 85**	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	**0.764 555**	m^3
			CAPACITY		
1 L	1.759 755	pints	1 pint	**0.568 261**	L
1 L	0.879 877	quarts	1 quart	**1.136 522**	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
			MASS		
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	**28.349 523**	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	**907.184 74**	kg
1 t	1.102 311	tons (short)	1 ton (short)	**0.907 184 74**	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	**1016.046 908 8**	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	**1.016 046 908 8**	t
			CONCENTRATION		
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights/ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy)/ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

NOTE–Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	Yes	L.J.
2	Assessment Files Research Office, Toronto	N.A.	L.J.
3	ODM General Index; 9 Volumes	No	L.J.
4	Catalogue of Airborne Geophysical Surveys (ODM)	No	L.J.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	No	L.J.
6	ODM Industrial Mineral Reports	No	L.J.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	L.J.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	Yes	L.J.
9	Newspaper Clippings File	No	L.J.
10	GSC Index to Publications	Yes	L.J.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	L.J.
12	OGS Index Maps	Yes	L.J.
13	Source Mineral Deposit Records (O.G.S.) Mineral Occurrences File	No	L.J.
14	Author - Subject Articles File	Yes	L.J.
15	Miscellaneous Papers: ODM & OGS	Yes	L.J.
16	ODM Geological Circulars: OGS Study Series , Reports	No	L.J.
17	ODM Preliminary Reports: ODM Bulletins	No	L.J.
18	ODM – OGS Open File Reports	No	L.J.
19	OGS Northern Ontario Engineering Geology Terrain Studies	Yes	L.J.
20	OGS Aggregate Resources Inventory Papers	No	L.J.
21	OGS Mineral Potential Maps	Yes	L.J.
22	Theses on File, Sudbury	Yes	L.J.
23	Aerial Photographs on File, Sudbury	Yes	L.J.

METALS AND MINERALS REFERENCES LIST

- △ anh. . . . . .Anhydrite
- △ ank. . . . . .Ankerite
- △ anna . . . . . Annabergite
- △ ap. . . . . .Apatite
- △ arg . . . . . Argentite
- △ As . . . . . .Arsenic
- △ asp . . . . . .Arsenopyrite
- △ asb . . . . . .Asbestos
- △ ba. . . . . .Barite
- △ be. . . . . .Beryl
- △ Bi. . . . . .Bismuth
- △ bn . . . . . .Bornite
- △ bran . . . . . .Brannerite
- △ bruc . . . . . .Brucite
- △ Cd . . . . . Cadmium
- △ calc. . . . . .Calcite
- △ carb . . . . . .Carbonate
- △ cel . . . . . .Celestite
- △ cc. . . . . .Chalcocite
- △ cp. . . . . .Chalcopyrite
- △ ch. . . . . .Chert
- △ clay . . . . . .Clay
- ▲ Co . . . . . Cobalt
- △ cob. . . . . Cobaltite
- △ cb. . . . . .Columbite
- ▲ Cu . . . . . .Copper
- △ cor . . . . . Corundum
- △ dol . . . . . Dolomite
- △ ep. . . . . Epidote
- △ ery . . . . . Erythrite
- △ fel . . . . . .Feldspar
- △ fl . . . . . .Fluorite (flurospar)
- △ fu. . . . . .Fuchsite
- △ gn. . . . . Galena
- △ gt. . . . . Garnet
- △ goe . . . . . .Goethite
- △ Au . . . . . Gold
- △ gf. . . . . .Graphite
- △ gl . . . . . Gravel
- △ gyp. . . . . Gypsum
- △ hem . . . . . Hematite
- △ il . . . . . Ilmenite
- △ Fe . . . . . .Iron
- △ IF. . . . . Iron Formation
- △ jas . . . . . Jasper
- △ kaol . . . . . .Kaolinite (kaolin)
- △ ky . . . . . Kyanite
- △ Pb . . . . . Lead
- △ lim . . . . . Limonite
- △ Li. . . . . Lithium
- △ mgst . . . . . Magnesite
- △ mag . . . . . Magnetite
- △ mc . . . . . Malachite
- △ Mn . . . . . Manganese
- △ mb . . . . . Marble
- △ mar. . . . . Marcasite
- △ ma . . . . . .Marl
- △ mi . . . . . Mica
- △ ml . . . . . Millerite
- △ mo . . . . . Molybdenite
- △ Mo . . . . . .Molybdenum
- △ mon . . . . . Monazite
- △ ne. . . . . Nephelite (nepheline)
- △ nc. . . . . .Niccolite
- △ Ni. . . . . Nickel
- △ Nb . . . . . .Niobium
- △ Pd . . . . . Palladium
- △ peat . . . . . .Peat
- △ pent . . . . . Pentlandite
- △ Pt. . . . . .Platinum
- △ py . . . . . .Pyrite
- △ pyl . . . . . Pyrochlore
- △ pyrl . . . . . .Pyrolusite
- △ po . . . . . .Pyrrhotite
- △ q . . . . . Quartz
- △ qcv . . . . .Quartz carbonate vein
- △ ra. . . . . .Radioactive minerals
- △ RE . . . . . .Rare Earths
- △ sd. . . . . Sand
- △ sgl . . . . . Sand and gravel
- △ ss . . . . . .Sandstone
- △ scap . . . . . Scapolite
- △ shee . . . . . .Scheelite
- △ serp . . . . . Serpentine
- △ sh. . . . . Shale
- △ sid . . . . . Siderite
- △ si . . . . . Silica
- △ Ag . . . . . .Silver
- △ sl . . . . . Slate
- △ sm . . . . . .Smaltite
- △ sod . . . . . Sodalite
- △ spec . . . . . Specularite
- △ sp. . . . . .Sphalerite
- △ spd . . . . . .Spodumene
- △ staur . . . . . .Staurolite
- △ stib. . . . . Stibnite
- △ st . . . . . .Stone
- △ talc. . . . . .Talc
- △ Te . . . . . .Tellurium
- △ td. . . . . Tetrahedrite
- △ th. . . . . .Thorite
- △ Th . . . . . .Thorium
- △ thuc . . . . . Thucholite
- △ ti . . . . . Titanite
- △ Ti. . . . . Titanium
- △ tour . . . . . .Tourmaline
- △ trap . . . . . .Trap rock
- △ W. . . . . Tungsten
- △ uran . . . . . Uraninite
- △ U . . . . . .Uranium
- △ verm . . . . . .Vermiculite
- △ Y . . . . . Yttrium
- △ Zn . . . . . .Zinc
- △ zr. . . . . Zircon

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

LEASK TOWNSHIP

MINERAL OCCURRENCES

Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
A	Major Leckie's Shaft	Co, Cu			Leask 0010

GDIF FORM NO. 1

4 LEASK TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE	COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
1	Elliott, A. (Leask 0010)											84				84				

GDIF FORM NO. 2

LEASK TOWNSHIP

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for

GDIF FORM NO. 3

LEASK TOWNSHIP 9

AIRBORNE GEOPHYSICAL SURVEY DATA

No.	By For	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing

GDIF FORM NO. 4

LEASK TOWNSHIP

GEOCHEMICAL SURVEY DATA

Map Sample Site Reference Number	Type of Survey	Analysis For	By	Reference

GDIF FORM NO. 5

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result

Major Leckie's Shaft - Around 1910 Major J. A. Leckie and an exploration group sank a shaft of some 40 to 50 feet in depth in northwestern Leask Township on a vein of massive cobalt sulphides. In 1983 A. Elliot sought and found this same shaft and performed some geophysical work in the area. (Leask 0010)

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional Resident Geologist's Office.

ODM GENERAL INDEX SEARCH

Words searched:

Barnet Lake
Elliott, A.
Leask Township
Leckie, Major J. A.
Prune Lake

Index Volume	Listing:	Report Volume	Part	Page

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page

LEASK TOWNSHIP

GDIF FORM NO. 8

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		REGIONAL GEOLOGICAL COMPILATION MAPS		
Card, K. D.	1967	Westree Sheet	ODM Map P.300	1" = 2 miles
Card, K.D., Lumbers, S.B.	1974,75	Sudbury-Cobalt Geological Compilation (revised)	OGS Map 2361	1" = 4 miles
		GEOPHYSICAL MAPS		
GSC - ODM	1965	Aeromagnetic Map - Thor Lake	1520G	1" = 1 mile
Gupta, V. K.	1981	Bouguer Gravity and Generalized Geological Map of the Gogama-Gowganda Area	OGS Map P.2481	1:100 000
ODM - GSC	1965	Aeromagnetic Map - Gogama Sheet	7076G	1" = 4 miles
	1979	Uranium Reconnaissance Program Airborne Gamma Ray Spectrometer Survey, Gogama	Map 80 374	1:250 000
		SURFICIAL, PLEISTOCENE, TERRAIN ENGINEERING		
EMR	1975	Topographic Map - Thor Lake	41 P/3	1:50 000
Roed, M.A., Hallett, D. R.	1980	NOEGTS Data Base Map, Westree NOEGT Study 88, Westree Area	Map 5022	1:100 000
Salo, E.V., Carswell, B.F.	1987	Surficial Geology of Northern Ontario	OGS Map 2518	1:1 200 000
		MINERAL POTENTIAL MAPS		
Springer, J.	1977	Ontario Mineral Potential, Gogama Sheet and Part of Ville-Marie Sheet	OGS Map P.1514	1:250 000

GDIF FORM NO.9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		GEOCHEMICAL MAPS		
		No data available as of August 10, 1988		
		GEOLOGICAL REPORTS AND MAPS		
		No data available as of August 10, 1988		
		JOURNALS, ARTICLES, THESES AND TECHNICAL REPORTS		
Chandler, F. W.	1986	Sedimentology and Paleoclimatology of the Huronian (Early Aphebian) Lorrain and Gordon Lake Formations and their Bearing on Models for Sedimentary Copper Mineralization	GSC Paper 86-1A	pp. 121-132
Eade, K. E.	1950	The Huronian Rocks of Northwestern Ontario; M.Sc., McGill University	MP 2	
Hadley, D. G.	1968	The Sedimentology of the Huronian Formation Ontario and Quebec, Canada	Theses on File	
Lindsey, D. A.	1969	Glacial Sedimentology of the Precambrian Gowganda Formation, Ontario, Canada	GSA Bull. 80	pp. 1685-1702
Parkinson, R.N.	1951	A Study of Rock Alteration Associated with Silver Mineralization in Cobalt, Ontario; M.A.Sc., University of Toronto	MP 2	
Young, G. M.	1981	The Early Proterozoic Gowganda Formation, Ontario, Canada. Earth's Pre-Pleistocene Glacial Record	Cambridge University Press	pp. 807-812

GDIF FORM NO.9

NOTES AND ADDENDA

AERIAL PHOTOGRAPHS INDEX

Scale 1" = 1/4 mile

Year	Roll	Line	Number
1970	48	4710	242-248
	20	4709	85-91
	20	4708	20-27
	27	4707	238-244

GDIF FORM NO.10

Ministry of
Northern Developm
and Mines

Ontario

ONTARIO GEOLOGICAL SU

PROPERTY LOCATION

GEOLOGICAL DATA INVENTORY

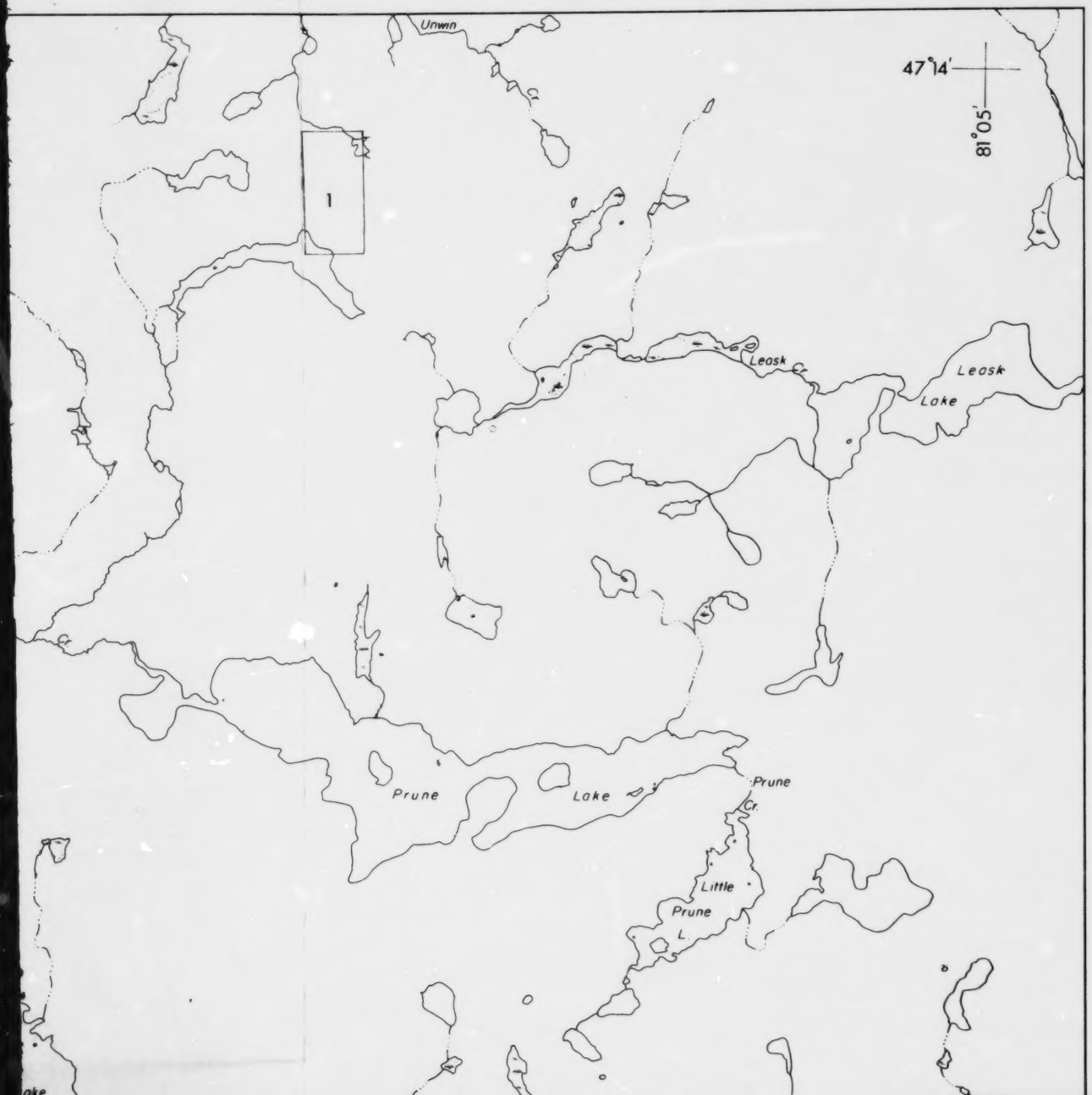
(Map 1 of 2)

LEASK TOWN

Scale 1:31 680

Kilometre 0.5 0 0.5

Mile 0.5 0 0.5



Ministry of Northern Development and Mines

Mines and Minerals Division

Ontario

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

GEOLOGICAL DATA INVENTORY FOLIO 492

(Map 1 of 2)

LEASK TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

Scale 1:31 680

Kilometre 0.5 0 0.5

Mile 0.5 0

Hazen

Prune

Prune Lake

Prune Cr.

Little Prune L.

Barnet

Lake

81°12'

47°09'

Pilon L.

Mc Namara

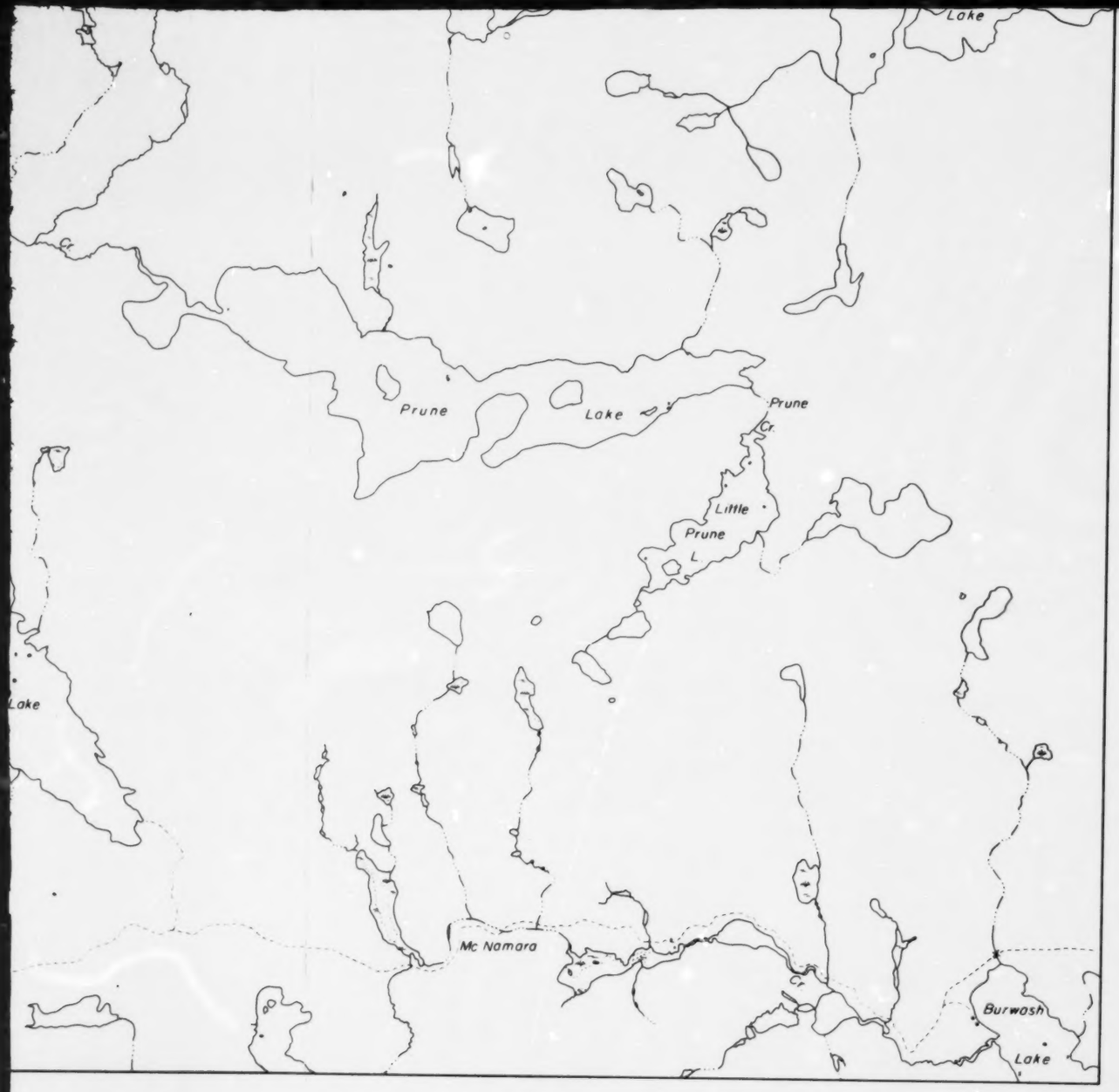
Burwash Lake

EXPLORATION DATA

■ 1 6 Reference number is always i
See listing in text pages.

□ x 4 Small area of exploration

□ ★ File covers whole township or



Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

EXPLORATION DATA FILE AREAS

- ■ ① ⑥ — Reference number is always inside work area outlined. See listing in text pages.
- □ x ④ — Small area of exploration
- □ ★ — File covers whole township or area

TYPES OF DATA SHOWN ON THIS MAP

GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

- ☐ Geochemical sample site, with reference number
- ☐ Area of geochemical sampling, with reference number
- ☐ Age dating material sampling site, with reference number

GEOPHYSICAL ANOMALIES

- ☐ AM — Airborne magnetic anomaly
- ☐ Airborne electromagnetic anomaly Length of anomaly along flight line
- ☐ Airborne electromagnetic anomaly Location of anomaly along flight line
- ☐ Airborne electromagnetic anomaly Conductor axis: definite, probable, possible
- ☐ ARA — Airborne radiometric anomaly
- ■ M — Ground magnetic anomaly
- ☐ VL — Ground electromagnetic anomaly (VL - Vertical loop; HL - Horizontal loop VLF - Very low freq.; Turam; JEM - Crone Em - 16)
- ☐ RA — Ground radiometric anomaly
- ☐ IP — Induced polarization anomaly
- ■ SP — Self potential anomaly
- ☐ AFMAG — Audio-frequency magnetic anomaly (total intensity)
- ☐ R — Resistivity anomaly
- ☐ GR — Gravity anomaly

Ministry of Northern Development and Mines

Mines and Minerals Division

Ontario

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO 492

(Map 2 of 2)

LEASK TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp A. — Mineral occurrence at surface, with reference letter
- Au A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag A. — Mineral occurrence reported but exact location uncertain, with reference letter
- cp A. — Mineralized float with reference letter
- A. — Mineral occurrence in drillhole, with reference letter, and drillhole number

DRILLHOLES

Airborne electromagnetic anomaly
Conductor axis: definite, probable, possible

Airborne radiometric anomaly

Ground magnetic anomaly

Ground electromagnetic anomaly
(VL - Vertical loop; HL - Horizontal loop
VLF - Very low freq.; Turam; JEM -
Crone Em - 16)

Ground radiometric anomaly

Induced polarization anomaly

Self potential anomaly

Audio-frequency magnetic anomaly
(total intensity)

Resistivity anomaly

Gravity anomaly

MISCELLANEOUS DATA

Trenching, pit

Adit

Open pit

Rock quarry

Sand and/or gravel pit

NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- ☐ cp ▲ A. — Mineral occurrence at surface, with reference letter
- ■ Au ◢ A. 84' — Mineral occurrence with shaft, depth given with reference letter
- ☐ Ag △ A. — Mineral occurrence reported but exact location uncertain, with reference letter
- ☐ cp ▬ A. — Mineralized float with reference letter
- ☐ △ A. — Mineral occurrence in drillhole, with reference letter, and drillhole number

DRILLHOLES

- ☐ ●² — Location of single drillhole, with reference number
- ☐ ◉² — Location of closely spaced group of drillholes, with reference number
- ☐ ⊙² — Drillhole, exact location uncertain, with reference number
- ☐ ◡ — Property with underground drillholes in this general area with reference number
- ☐ ○² — Property with drillholes which have not been plotted on map, with reference number
- ☐ ⊕² — Reverse circulation drillhole; churn drilling, with reference number